SERIES CLUB

CE

LT-211

RGB COMPUTERIZED LASER LIGHT

OPENING FOR
LASER RADIATION

USER MANUAL

®SILVER STAR
Professional Lighting

www.yagang.com

Version 1.0
2005.11.17

Open box to check

➢When you receive the product, take it gently check if there is problem which cause in transportation. At the same time please pay attention to see if there are some parts enclosed:

1. 1unit laser light
2. 1pc power cable
3. 1pc Pin3 signal cable
4. 1pc user manual
5. 1pc Pin25 ILDA cable

INSTALLATION

➢Please confirm whether the voltage you have is same as signed on the light before install.

➢Installed by technician. It muse be placed safety and best light angle.

➢Must keep space between light equipments and combustibles more than half a meter. Keep space between light equipments and wall more than 0.15 meter.

➢The fans and vent-pipes should not be jammed by other equipment and decorate materials.

➢The light must be fixture installed.

➢In safety view please put ground wire into the ground.

ATTENTION

➢Please do not open the bottom cover yourself without permission. Operate it accord the user manual. Please call the technician in case the machine broken down.

➢Do not use it under the damp and rain.

➢Pay attention to prevent the light from strong bump.

➢Prevent the dust into the product

➢Keep the vent-pipe well while working.

➢Keep the plug insert well before put into power.

➢Don't look the light directly to prevent make some destroy with eyes.

➢Don't light or extinguish frequently, otherwise the life span of the light tube will be shortened.

➢In view of the special characters, after operated the light an hour the product shall be paused about 15 minutes before be used next time.

➢Keep the space between light equipments and the lighted things more than one meter.

➢Don't touch the product and draw the power line if you hand wet.

➢Don't open the cover for there have no parts the user can repair.

➢Don't operate the light without lamps.

➢If the semiconductor laser doesn't as light as before or there have some destroy with lens or other parts, please contact the distributor in time.

➢When you want to retransfer the products, you'd better use the original package to shockproof.

Maintain

• Please use cotton stick dipped alcohol to wipe the mirrors at regular. Do not use the wet cloth or chemical impregnant to clean the mirrors.

• Please use the soft cloth to clean the surface of product.

ATTENTION: **Disconnect input power before maintain.**

Don't look straightly at the light sources.

NOTE: Don't seperate laser machine from laser power and repaire them by yourself otherwise no good repair service will be supplied.i

Technology Paramters

Cooling mode	Air cooling
Voltage	AC100V~AC240V 50/60Hz
Power	50W
Colour	Red, Yellow, Green, Cyan, Blue, Purple, White
DMX Channel	24
Scanner	Super-speed scanner
Scan angel	0~±30°
Control mode	Music mode, Auto-mode, DMX512

Panel operation
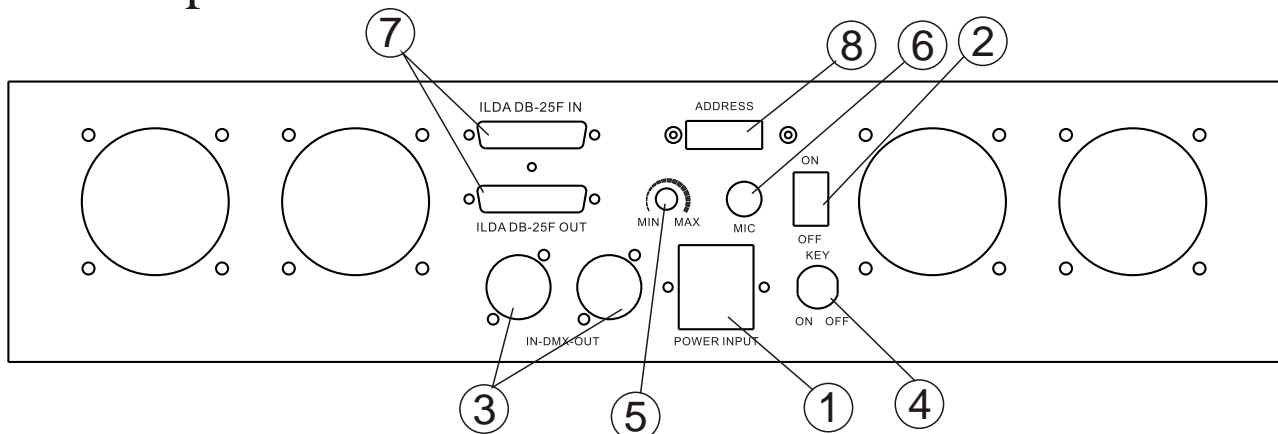
1	POWER In: Power cord, with inner fuse
2	POWER ON/OFF: Power on/off
3	DMX IN/OUT: International standard DMX512 signal input/output
4	Security key switch: Power switch
5	MIN—MAX: Sound control
6	MIC: Sound receiver
7	ILDA DB25F IN/OUT: Signal input connection port of the laser perform software that in accordance with the ILDA standard.
8	ADDRESS：Address code switch. The 10th code is switch code. If the 10th code is OFF, the 1-9 codes are function code. If the 10th code is ON, the fixture can be controlled by DMX512 signal and other codes are DMX address codes. If set the address code of first light be 1, and then the second light will be 25 and so on.

1. Computer software control mode

Fixture, there has a switch to select control mode - by computer or inside program:The fixture has ILDA DB 25 connector so that it can be controlled by computer software. In the When ILDA DB25F IN connects with QM2000 interfacial card or USB interfacial card, the lamp will be control by software which installed in the computer. When ILDA DB25F IN connector's connection port are free, the laser will driver by the inside program, temporality it can control by music or DMX512 signal.

The control mode switch will check the 4th Pin (InterLock A) and the 17th Pin (InterLock B) to adjust whether there has computer (with interfacial card) be connected to fixture. If Pin 4 not be connected to Pin 17, it means there no interfacial card otherwise there has and the connection port can receive all the signal of laser perform software that accord with the ILDA standard, such as LD-2000 of Pangolin company.

In the theory, all the signal of laser perform software that accord with the ILDA Db25 standard can control the fixture. But Pin 4 and Pin 17 not be connected in some laser perform interfacial card. You will need to sold this two pins together at Pin25 signal output connector or connect Pin4 and Pin 17of the standard Pin 25 signal cable before use.

Note: We have tested that Pangolin Ld2000 (Qm2000 PCI interfacial card)

and our i.Top laser (USB2.0)interfacial card) can work with this fixture well. But you will need to make changes as above mentioned when you use Mamba Black software (Easylaser interfacial card) of MediaLaser company.

2.Inside program mode (include DMX)

This mode will be set by address code. The 10th code is switch code. When the 10th code is OFF, code 1-9 are function codes. When the 10th code is ON, code 1-9 are DMX address codes and the fixture will under DMX control mode.

Function code setting:

Algorism	Binary cod (9 codes)	Function	Address switch	
0	000000000	Accelerated music mode	1 2 3 4 5 6 7 8 9 10 ON OFF	Switch for DMX control mode, The setting in the picture is DMX signal not acceptable
1	100000000	Standard music mode	1 2 3 4 5 6 7 8 9 10 ON OFF	
2	010000000	Auto mode	1 2 3 4 5 6 7 8 9 10 ON OFF	
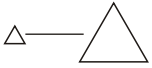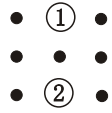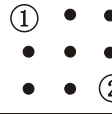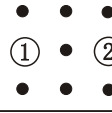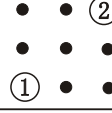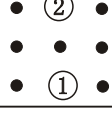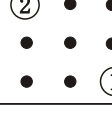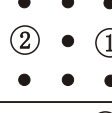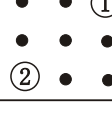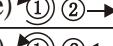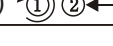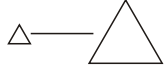
DMX address code setting:

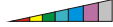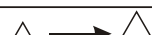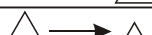| Algorism	Binary code(9 codes)	DMX address code	
1	100000000	1 2 3 4 5 6 7 8 9 10 ON OFF	Switch for DMX control mode. The setting in the picture is DMX signal acceptable
15	111100000	1 2 3 4 5 6 7 8 9 10 ON OFF	
25	100110000	1 2 3 4 5 6 7 8 9 10 ON OFF	

LT-211 RGB LASER LIGHT

The machine can display two different patterns at the same time--24 channel version.And the 2nd pattern can move with the main pattern-17 channel version,Also you can display one pattern only--14channel version. The function of each channel as following(if the channnel not mention main pattern or the 2nd pattern, it means this channel has effect for both two patterns. Such as channel 1,4,11,12).

Channel		DMX Value	Function	
1	Control Mode	0-41	Accelerated music active(Channel 2~24 no function)	
		42~83	Standard music active(Channel 2~24 no function)	
		84~125	Auto-mode(Channel 2~24 no function)	
		126~167	Sound accelerated manual mode	
		168~209	Manual(Sound active)	
		210~255	Manual(Auto-mode, movement auto active)	
2	Main Pattern Colour	0~16	Close	
		17~33	Original colour	
		34~50	Red	
		51~67	Yellow	
		68~84	Green	
		85~101	Cyan	
		102~118	Blue	
		119~135	Purple	
		136~152	White	
		153~169	Single colour change	
		170~186	Stochastic Single colour	
		187~203	Rainbow colour flow	
		204~220	Static colour + strobe	
		221~237	Stochastic colour + strobe	
		238~254	Stochastic multi colour + strobe	
		255	Colour flow + strobe	
3	Main Pattern	0~255	256 patterns(0~255)	
4	Speed	0~255	42 Class speed(0~255)/6=(0~42)	
5	Main Pattern Rotate	0~63	No Function	
		64~127	Horizontal Rotate(around Y axis)	
		128~191	Vertical Rotate(around X axis)	
		192~255	Horizontal & Vertical rotate	
6	Main Pattern Rotation	0~63	No Function	
		64~127	Rotating(around Z axis)	
		128~191	Dotting(only dot, no line)	
		192~255	Dot rotating	
7	Main Pattern Bounce	0~63	No Function	
		64~127	Horizontal Movement	
		128~191	Vertical Movement	
		192~255	Sidelong Movement	
8	Main Pattern Extend	0~63	No Function	
		64~127	Extend in Horizontal	
		128~191	Extend in Vertical	
		192~255	Extend in Horizontal & Vertical	
9	Zoom	0~63	No Function	
		64~127	From small to large	
		128~191	from large to small	
		192~255	From small to large and then from large to small	

10	Drawing speed	0~255	16 Class speed(0~255)/17=(0~15) 0 no effect	
11	Scan speed	0~2	Proset scan speed(Speed 50)	
		3~255	253 class speed(from fast to slow)	
12	Color speed	0~255	255 Class(Slow to fast)	
13	Size	0~2	Original Size(100%)	
		3~255	253 Class Size(3%~255%)	
14	Double patterns & position Postion Reference frame (0,0) (0,255) A B C D E F G H I (0,255) (255,255) A (64,64) B(128,64) C(192,64) D(64,128) E(128,128) F(64,128) G(64,64) H(128,64) I(192,192)	0~27	No double patterns & position(15~24 out of effect)	
		28~55	Pattern 1 Position B Pattern 2 Position H	
		56~83	Pattern 1 Position A Pattern 2 Position I	
		84~111	Pattern 1 Position D Pattern 2 Position F	
		112~139	Pattern 1 Position G Pattern 2 Position C	
		140~167	Pattern 1 Position H Pattern 2 Position B	
		168~195	Pattern 1 Position I Pattern 2 Position A	
		196~223	Pattern 1 Position F Pattern 2 Position D	
		224~251	Pattern 1 Position C Pattern 2 Position G	
		252~255	Pattern 1 Position E Pattern 2 Position E	
15	the 2nd pattern move mode	0~63	The 2nd reverse with the main pattern(18~24 no effect)	
		64~127	The 2nd rotate with the main pattern(18~24 no effect)	
		128~191	The 2nd pattern reverse alone(18~24 channel decide move mode)	
		191~255	The 2nd pattern rotate alone(18~24 channel decide move mode)	
16	the 2nd pattern	0~255	256 patterns	
17	The 2nd pattern size	0~2	Original size(100%)	
		3~255	253 Class size(3%~255%)	

18	The 2nd pattern colour	0~16	Colse	
		17~33	Original color	
		34~50	Red	
		51~67	Yellow	
		68~84	Green	
		85~101	Cyan	
		102~118	Blue	
		119~135	Purple	
		136~152	White	
		153~169	Single color change	
		170~186	Stochastic color change--original color + a new color	
		187~203	Rainbow flow effecf	
		204~220	Original color + strobe	
		221~237	Stochastic color + strobe	
		238~254	Stochastic rainbow color + strobe	
		255	Rainbow flow + strobe	
19	The 2nd Pattern Rotate	0~63	No Function	
		64~127	Horizontal rotate(around Y axis)	
		128~191	Vertical rotate(around X axis)	
		192~255	Horizontal & Vertical rotate	
20	The 2nd Pattern Dot rotating	0~63	No Function	
		64~127	Rotate(around Z axis)	
		128~191	Dotting(Only dot, no line)	
		192~255	Dot rotating	
21	The 2nd Pattern Move	0~63	No Function	
		64~127	Horizontal move	
		128~191	Vertical move	
		192~255	Sidelong move	
22	The 2nd Pattern Extend	0~63	No Function	
		64~127	Extend in Horizontal	
		128~191	Extend in Vertical	
		192~255	Extend in Horizontal & Vertical	
23	Zoom	0~63	No Function	
		64~127	From small to large	
		128~191	From large to small	
		192~255	From small to large and then to small	
24	Drawing speed	0~255	42 Class speed(0~255)/6=(0~42) 0 no drawing	

Appendix: ILDADB25F PINOUTSDB 25 definens

1	X +	-5 to +5V
2	Y +	-5 to +5V
3	No Use	No use
4	Interlock A	Connected to Pin 17 inside the QM 2000
5	Red +	0v to +2.5v
6	Green +	0v to +2.5v
7	Blue +	0v to +2.5v
8	No Use	No use
9	No Use	No use
10	No Use	No use
11	No Use	No use
12	Not connected	No use
13	No Use	No use
14	X −	+5V to -5V
15	Y −	+5V to -5V
16	No Use	No use
17	Interlock B	Connected to Pin4 inside the Qm 2000
18	Red −	-2.5V to 0V
19	Green −	-2.5V to 0V
20	Blue −	-2.5V to 0V
21	No Use	No use
22	No Use	No use
23	No Use	No use
24	No Use	No use
25	Ground	Cable shielded

Problem and Answer

Problem	Causation	Replace part	Series number
No power	Fuse broke	Fuse	09-00-2001-01
	Pin4 switch broke	Pin 4 switch	08-05-0420-02
	Power supply broke	±24V	16-03-0004-00
No response to music or it is difficult beactived by music	MIC broken	MIC	16-03-0001-00
	LT-211 code control board	LT-211 code control board	26-2A-LT211-00
	Potentionmeter broke	Potentionmeter	04-03-0105-03
X,Y scanner no strength or no patternor scanner shaking	Scanner broke	Super scan motor	15-01-0002-00
	LT-211 code control board	LT-211 code control board	26-2A-LT211-00
	Power supply broke	±24V	16-03-0004-00
	Super speed scan board broke	Super speed scan board	26-2A-FASTSCAN-00
No beam or beam dim or beam can't close, but other functions OK	Scan mirror dirty	Refer to user manual	
	Laser diode broke	Green laser diode	07-01-0005-01
		Red laser diode	07-03-0080-00
		Blue laser diode	07-02-0020-01
	LT-211 code control board	LT-211 code control board	26-2A-LT211-00
	Control mode setting incorrect	Refer manual	
	Signal switch board broke	Signal switch board	26-2A-SIGNAL-00
Can not control other function OK,Such as laser diode and fans	Control mode setting incorrect	Refer manual	
	LT-211 code control board	LT-211 code control board	26-2A-LT211-00
	Power supply broke	±24V power supply	16-03-0004-00
	Address code board broke	LT-6 address code board	26-2A-LT6SW-00
	Signal switch board broke	Signal switch board	26-2A-SIGNAL-00
	USB box	2007USB box	USB20-KT-00
	Signal broke	USB signal cable	27-08-0005-00
		LD 2000 signal cable	
	Power supply broke	±12V power supply	16-03-0019-00